WHAT IS CLAIMED IS:

1. A charged-particle beam drawing data creation method of supplying bit information created from design pattern data in a scanning direction of a charged-particle beam, ON/OFF-controlling the charged-particle beam to irradiate a sample surface, and exposing a two-dimensional pattern by scanning the charged-particle beam, comprising the steps of:

extracting a cell pattern as one unit of a periodic structure from design pattern data having a periodic structure, and registering the cell pattern;

creating arrangement data to be rearranged in a basic drawing region defined by a charged-particle beam exposure apparatus using the cell pattern, and registering the arrangement data; and

cutting out data from the cell pattern in accordance with information of the arrangement data, and creating data of the basic drawing region.

2. The method according to claim 1, wherein the basic drawing region includes all or some of regions of a plurality of cell patterns.

3. The method according to claim 1, wherein the cell pattern is not smaller in size than the basic drawing region.

4. The method according to claim 1, wherein the cell pattern is smaller in size than the basic drawing region.

5. The method according to claim 1, wherein the basic drawing region includes at least some of cell patterns not smaller in size than the basic drawing region and some of cell patterns smaller in size than the basic drawing region.

6. The method according to claim 1, wherein the cell pattern is not less than twice in size the basic drawing region.

7. The method according to claim 1, wherein the cell pattern is formed from bitmap data.

8. A charged-particle beam exposure apparatus for supplying bit information created from design pattern data in a scanning direction of a charged-particle beam, ON/OFF-controlling the charged-particle beam to irradiate a sample surface, and exposing a two-dimensional pattern by scanning the charged-particle beam, comprising:

means for extracting a cell pattern as one unit of a periodic structure from design pattern data having a periodic structure, and registering the cell pattern;

means for creating arrangement data to be rearranged in a basic drawing region defined by the charged-particle beam exposure apparatus using the cell pattern, and registering the arrangement data; and

means for cutting out data from the cell pattern in accordance with information of the arrangement data,

and creating data of the basic drawing region.

9. The apparatus according to claim 8, wherein the basic drawing region includes all or some of regions of a plurality of cell patterns.

10. The apparatus according to claim 8, wherein the cell pattern is not smaller in size than the basic drawing region.

11. The apparatus according to claim 8, wherein the cell pattern is smaller in size than the basic drawing region.

12. The apparatus according to claim 8, wherein the basic drawing region includes at least some of cell patterns not smaller in size than the basic drawing region and some of cell patterns smaller in size than the basic drawing region.

13. The apparatus according to claim 8, wherein the cell pattern is not less than twice in size the basic drawing region.

14. The apparatus according to claim 8, wherein the cell pattern is formed from bitmap data.

15. The apparatus according to claim 8, further comprising:

a plurality of charged-particle beams and a plurality of beam-ON/OFF means arranged in m rows x n columns,

wherein in a drawing method of drawing patterns in

parallel with each other in respective basic drawing regions by the charged-particle beams,

bitmap drawing data are supplied in parallel with each other to said respective beam-ON/OFF means in the scanning direction of the charged-particle beam, and

the plurality of charged-particle beams are controlled to irradiate a sample surface, thereby drawing a two-dimensional pattern.